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(58) Field of search

B5A

Selected US specifications from IPC sub-class B01J

(54) Method for forming flakes or granules of cooking fat, and dispenser for said flakes or granules

(57) According to a first aspect of the invention there is provided a method of forming flakes or granules of fat, comprising pouring molten fat onto a flat horizontal bed, passing said flat bed through a freezer to freeze the fat into a frozen sheet, and passing said sheet through breaker means which breaks up the sheet into flakes or granules.

According to a second aspect of the invention, there is provided a dispenser for flakes or granules of fat, comprising a container for holding the fat, adapted to keep the contents at a substantially constant temperature, and including at least one sealable opening, the opening being shaped and sized to allow the flakes or granules to be shaken out of the opening without being damaged.

An exemplified container (3) having an opening (4) comprises an inner (5) of conducting material and an outer (6) of insulating material. The inner has a lid (7) of insulating material and the outer has a hinged lid (8) with a locking device (9).

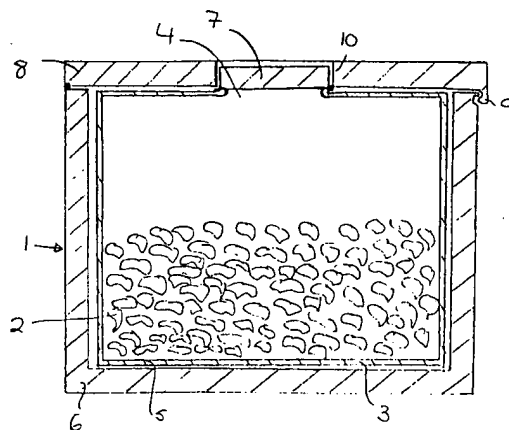


FIGURE 1

The drawings originally filed were informal and the print here reproduced is taken from a later filed formal copy.  
The claims were filed later than the filing date within the period prescribed by Rule 25(1) of the Patents Rules 1982.

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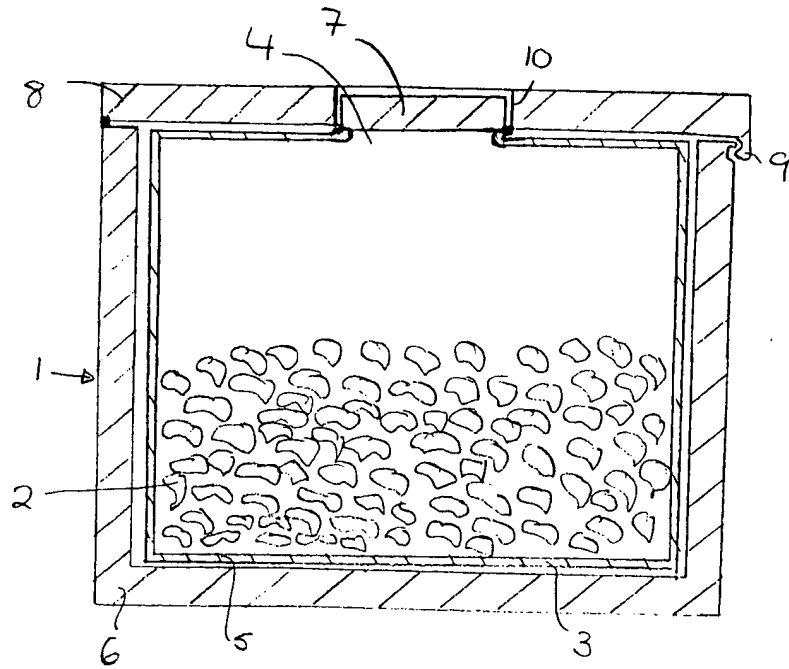


FIGURE 1

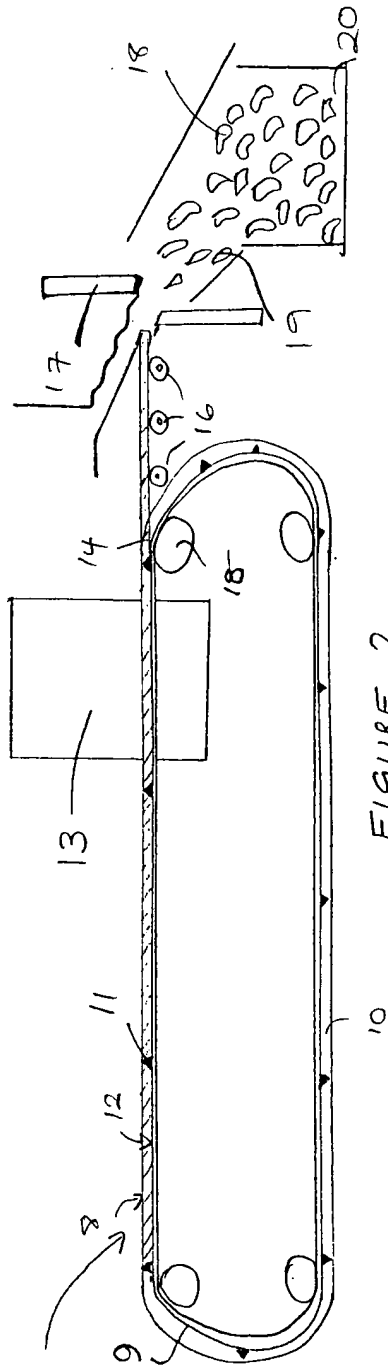
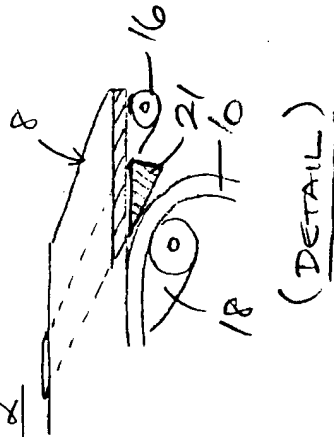


FIGURE 2



(DETAIL)

## SPECIFICATION

**Method for forming flakes or granules of cooking fat, and dispenser for said flakes or granules**

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*Field of the invention*

The invention relates to a method of forming flakes or granules of cooking fat and to a dispenser for dispensing the cooking fat in the form of flakes or

10 granules.

In the following specification, the term fat will be used to define any cooking fat which is usually sold in block form, for example, margarine, butter or lard.

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*Summary of the invention*

According to a first aspect of the invention there is provided a method of forming flakes or granules of fat, comprising pouring molten fat onto a flat

20 horizontal bed, passing said flat bed through a freezer to freeze the fat into a frozen sheet, and passing said sheet through breaker means which breaks up the sheet into flakes or granules.

The flat bed may form part of a continuous conveyor or may comprise a flat plate. When the fat has frozen into a sheet, the sheet is moved off the flat bed in order to be broken up.

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The breaker means may comprise a series of teeth or alternatively knives which the flat sheet passes through. The resultant flakes or granules may then be stored and sold in a frozen state.

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Many recipes require a cook to first of all either grate her fat or chop it up into small pieces for ease of handling, for example in cake making and

35 pastry making. There are also cases with roasting or basting where flakes of fat are required.

According to a second aspect of the invention, there is provided a dispenser for flakes or granules of fat, comprising, a container for holding the fat, adapted to keep the contents at a substantially

40 constant temperature, and including at least one sealable opening, the opening being shaped and sized to allow the flakes or granules to be shaken out of the opening without being damaged.

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Such a dispenser may be used to dispense granules of suet, of flakes of butter, lard or hard margarine.

The invention would provide a dispenser which could be bought by a housewife full of flakes or granules of fat which could keep the fat at a cold

50 temperature ready for use.

In some cases, the granules or flakes need only to be kept at a cool temperature such as with cake making or roasting, but in other cases, it is preferred that the granules or flakes are kept frozen.

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The container may, itself, be insulated but preferably the dispenser comprises an inner container for the flakes of fat and an outer removable insulating cover. In this case, the fat may be kept in the inner container in either the fridge or a freezer at the required temperature and then when required to be used the inner container may be removed from the fridge or freezer and placed within the outer insulated cover for use where the cook may

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use the flakes and the heat from her hands will not

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penetrate into the inner container to start melting the fat.

Preferably the opening is sealed with an airtight seal so that the fat may be kept for a long time in the fridge or freezer.

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The opening has to be large in order to allow the flakes or granules to be shaken out of the container without the flakes or granules being damaged and press into each other.

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*Brief description of the drawings*

A method for forming flakes or granules of fat and a dispenser for flakes or granules of fat in accordance with the invention, will now be described, by way of example only, with reference to the accompanying drawings, in which;

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Figure 1 is a schematic section through the dispenser; and Figure 2 is a schematic diagram showing the method.

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*Description of the preferred embodiments*

A dispenser 1 is designed for dispensing flakes or pellets of fat. In this case the dispenser is for dispensing flakes of hard margarine 2.

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The dispenser 1 comprises a container 3 for holding the flakes of fat 2 and adapted to keep the contents at a substantially constant temperature. It includes one sealable opening 4 which is shaped and sized to allow the flakes 2 to be shaken out of the opening 4 without being damaged.

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The container 3 comprises an inner container 5 made out of a conducting material such as foil and an outer insulating container 6 made out of insulating material.

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Both the inner and outer containers 5 and 6 are cylindrical and have a circular opening 4 at the centre of their top.

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The inner container 5 includes a lid 7 made of insulating material which seals the opening 4 but is removable.

The outer container 6 has a hinged lid 8 which can be opened to allow the inner container 5 to be inserted. The lid 8 snaps shut via a locking device 9 and bore 10 allows the lid 7 to protrude outwards.

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Thus, the inner container 5 may be stored in a fridge or freezer to keep the margarine flakes 2 either at a cool temperature or at freezing temperature in order to make certain types of pastry. When the fat is to be used it cannot just be taken out of the fridge and used since the cook's hands will be hot and heat will be conducted through the conducting walls to 5 to melt the flakes 2. Thus the container is placed within the outer container 6 made of insulating material to keep the flakes 2 at a constant temperature. The lid 7 may be removed to allow the flakes 2 to be shaken out from the inner container 5 for use in cooking.

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The sealable lid 7 may be resealable or, alternatively, may be such that once the seal is broken it cannot be resealed.

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A method of forming flakes of fat is shown schematically in figure 2. Molten fat 8 is poured onto a continuous conveyor 9.

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The continuous conveyor 9 includes side walks 10 at each opposite side of the conveyor and lateral spacers 11 passing from one side wall 10 to the other. Thus the conveyor presents a series of flat beds 12 into which fat 8 may be poured. The conveyor 9 is then progressed forwards through freezer 13 where the fat 8 is frozen into a flat sheet 14.

Shortly after the conveyor has passed through freezer 13 it veers away from the horizontal around a roller 15. The flat sheet 14 continues horizontally and is (21) peeled off the conveyor 9. The flat sheet 14 is supported on a series of parallel rollers 16 and is moved towards the breaker means 17.

The breaker means 17 comprises a series of reciprocating serrated edged knives which break the fat up into flakes 18 which are guided through chute 19 to a waiting container 20.

Subsequently if required the flakes can then be transferred to dispensers as described with reference to figure 1. Alternatively if required in bulk, the flakes may be transferred to tubs similar to ice cream containers.

The knives 17 extend along the width of the sheet and are serrated to form the flakes of fat.

The thickness of the sheet is dependant upon whether thin flakes or small lumps of fat are required. For forming flakes, a thin sheet is required, of a depth, for example between five and twenty five thousandths of an inch.

#### CLAIMS

1. A method of forming flakes or granules of fat, comprising pouring molten fat onto a flat horizontal bed, passing said flat bed through a freezer to freeze the fat into a frozen sheet, and passing said sheet through breaker means which breaks up the sheet into flakes or granules.

2. A method according to Claim 1 and in which the flat bed forms part of a continuous conveyer.

3. A method according to Claim 1 or Claim 2 and in which the breaker means comprise a series of teeth or knives through which the flat sheet passes.

4. A dispenser for flakes or granules of fat, comprising a container for holding the fat, adapted to keep the contents at a substantially constant temperature, and including at least one sealable opening, the opening being shaped and sized to allow the flakes or granules to be shaken out of the opening without being damaged.

5. A dispenser according to Claim 4 and in which there is provided an inner container for the flakes of fat and an outer removable insulating cover.

6. A dispenser according to Claim 4 or Claim 5 and in which the opening is sealed, in use, with a substantially airtight seal.

7. A method of forming flakes or granules of fat, the method being carried out substantially as described herein with reference to Figure 2 of the accompanying drawings.

8. A dispenser substantially as described herein with reference to and as illustrated in Figure 1 of

the accompanying drawings.

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